

1631



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Patent
Docket No: 53091US009

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Ai-Ping Wei et al.

Serial No.: 09/448,633

Filed: November 24, 1999

For: FLUOROGENIC PROTEASE SUBSTRATES BASED ON DYE-DIMERIZATION

Group Art Unit: 1631

Examiner: M. Moran

#101/B
Plunkett
3/22/01

CERTIFICATE OF MAILING

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RESPONSE AND AMENDMENT UNDER 37 C.F.R. § 1.111

Commissioner for Patents
Washington, DC 20231

Dear Sir:

This is in response to the Official Action having a mailing date of December 4, 2001.

AMENDMENTS

In the claims:

Please amend the claims as follows:

1. (twice amended) A method of biological assay comprising:
- a) providing an enzyme substrate comprising two or more fluorescence dye groups bound to a flexible peptide comprising one or more enzymatically cleavable bonds, the dye groups being drawn together by free energy attractions such that the dye groups self-quench their fluorescence by dye stacking or dimerization, and
 - b) contacting said substrate with a substance being assayed to determine the presence of an enzyme capable of cleaving an enzymatically cleavable bond wherein the enzymatic cleaving of said cleavable bond of the peptide will release the fluorescent dye groups from dye stacking, thereby producing an increase in fluorescence intensity and indicating the presence of said enzyme.

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